

## **H1: Climate Change a Bitter Reality**

The mean pattern of weather in a particular place for at least 30 years is called Climate. A long-term change in temperature and weather patterns is called climate change. It can be natural such as changes in the solar cycle. But since the 1800s, anthropogenic activities have been the main cause of climate change, mainly because of burning fossil fuels, agriculture [and deforestation, and the manufacture of cement, chemicals, and metals.](#) [Nowadays climate change is often referred to as global warming.](#)

### **H2: Causes**

The major causes of global warming are as follows

### **H3: Greenhouse Gases**

· Main cause of this climate change is the greenhouse effect. Our earth has a limited amount of greenhouse gases i.e. carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, and fluorinated gases naturally which act as a blanket to trap heat, and this effect keeps our earth from being too cool to live. But anthropogenic activities have caused an increase in the amount of these gases that have led to global warming. CO<sub>2</sub> has a major role in climate change. Its concentration had risen to 48% in the atmosphere by 2020.

### **H4: Reasons for Increase in GHGs:**

- Coal, oil, and gas burning releases CO<sub>2</sub>
- Deforestation. Cutting down large amounts of forest for buildings and other purposes has led to an increase in greenhouse gases.
- Excessive livestock Farming for livelihood releases methane gas into the atmosphere.
- The use of fertilizers for growing crops produces nitrous oxide.
- Refrigerators and other types of equipment emit fluorinated gases. The effect of these emissions is very strong as they

### **H2: Effects:**

Global change in climate has severe impacts on human beings and wildlife.

1. [Due to the rise in greenhouse gas emissions, the atmospheric temperature has risen.](#) The 2011-2020 decade was recorded as the warmest era. Almost all the areas on earth are becoming hotter and seeing heat waves. Wildfires will become more frequent and heat-related diseases will become more prevalent.
2. In many regions, destructive storms have become more intense. Due to increased temperature more water evaporates which leads to extreme rainfall and flooding resulting in intensive storms. Frequent

cyclones, hurricanes, and typhoons occur on warm waters at the ocean surface. This destroys the homes and communities

3. An increase in temperature is altering water availability. Water shortage is more prevalent in already water fewer areas and it causes agricultural droughts affecting crops and other livelihoods.
4. Over the past decade, the sea is soaking up more heat due to global warming. Ice belts are also melting causing an increase in sea level. As the ocean absorbs CO<sub>2</sub> but an increase in CO<sub>2</sub> can endanger marine life and coral reefs.
5. Survival of species has become more difficult due to this change in the climate. Intensive weather, forest fires, invasive pest, and more disease are the major effects of change.
6. Reductions in crop production, livestock, and fisheries are causing the rise in global hunger and poor nutrition. Heat can cut the water and grassland from an area which will lead to a decrease in livestock food.
7. The impacts of climate are more prevalent on humans. There is an increase in air pollution that is causing severe health issues among people.

## **H2: Mitigations:**

Certain immediate steps and strategies must be adopted

- Afforestation
- Use energy-efficient sources
- Cut down the greenhouse gases emission by using renewable energy sources
- Carbon taxation the one who uses more carbon will pay for it.
- Immediate government actions to plan and impose policies to restrict deforestation
- Use of solar energy

## **H2: Conclusion**

Global temperature is increasing day by day. Humans are the contributors to this global change. It has destructive and uncountable effects on humans, the environment, plants, and animals. Our future generations will also have to suffer because of our activities. So from now, we have to plant more trees and cut down greenhouse gas emissions. Strict rules and regulations at government levels must be taken to save our planet.